REMARKS

The Office Action dated October 1, 2007 has been considered. In this response, claims 1, 8, 15, 21, and 26 have been amended and claims 2, 30, and 31 have been canceled without prejudice or disclaimer. Support for these amendments is found in the specification and drawings as originally filed and no new matter is introduced by these amendments. Reconsideration of the outstanding rejections in the present application is respectfully requested based on the following remarks.

§112 Rejection of Claims 1-31

At pages 2-5 of the Office Action, claims 1-31 are rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. This rejection is respectfully traversed.

The Office objects to the claim language "wherein said first and second terminal pairs are separated by a first predetermined distance sufficient to maintain an input-to-output isolation attenuation therebetween of not less than a first operational attenuation of the first external filter" and similar language. In particular, the Office objects to the claim phrase "not less than a first operational attenuation of the first external filter" as failing to define the metes and bounds of the claims on two grounds: 1) the Office contends that attenuation allegedly is measured in units of decibels per unit length of the medium and is represented by the attenuation coefficient of the medium in question; and 2) the claimed operational attenuation can be any number between negative infinity and positive infinity. *Office Action*, p. 3. The Applicants respectfully disagree.

The stopband attenuation of an external filter is one embodiment of an operational attenuation of an external filter contemplated by the Present Application, and thus the claims have been amended to more specifically recite "stopband attenuation" in place of "operational attenuation" in an effort to advance the Present Application to issuance. While the Office is correct in that the attenuation *of a medium* can be represented by an attenuation per unit length (e.g., decibels per millimeter) and/or by an attenuation coefficient/factor, the claims are not directed to an operational attenuation of a medium. Rather, they claim a stopband attenuation *of an external filter*, which one of ordinary skill in the art will readily appreciate is represented or measured in terms of *decibels*, rather than *decibels per unit length*. To illustrate, the Present

Application at paragraph 0022 describes a non-limiting example saw filter having a stopband attenuation of approximately –70 dB. Thus, the Office's contention that the claims are unclear because they do not specifically provide for a particular attenuation coefficient or a particular attenuation per unit length is of no import as the claims presently recite a stopband attenuation of an external filter, which typically is measured in decibels. Turning to the Office's argument that the operational attenuation of the external filter could be between negative and positive infinity and thus is unclear, the Applicants respectfully submit that while in theory an ideal filter could have an infinite attenuation, no known filter in application has an infinite attenuation, much less an infinite stopband attenuation, nor has the Office provided evidence of an actual filter having infinite attenuation. Thus, one of ordinary skill in the art will readily appreciate that the claimed external filter has a finite, measurable stopband attenuation. *See, e.g., Present Application*, para. 0018.

Depending on the assertion that the claimed "operational attenuation of the first external filter" is unclear, the Office further argues that the corresponding claim language "wherein said first and second terminal pairs are separated by a first predetermined distance sufficient to maintain an input-to-output isolation attenuation therebetween of not less than a first operational attenuation of the first external filter" is unclear because the claim language "still does not provide any specific distances between the differential input and output pins of a chip. Thus, the claims are still not definite . . . ." *Office Action*, p. 5. The Applicants respectfully submit that it is unnecessary to recite specific distances for the claims to be definite. As discussed above, the stopband attenuation of an external filter is finite and measurable. Further, the input-to-output isolation between terminal pairs of an integrated circuit is related to the distance between the terminal pairs and is finite and measurable or capable of being accurately estimated. Techniques to do so are well-known, such as via RF modeling using a computer-aided-design (CAD) modeling program. *See, e.g., Present Application*, para. 0033. Thus, in view of the teachings of the Present Application, one of ordinary skill in the art, having obtained the stopband attenuation of an external filter from a data sheet or via measurement or modeling, can adjust the distance between terminal pairs respectively connected to the input and the output of the external filter using, e.g., a CAD modeling program until the resulting input-to-output isolation attenuation between the terminal pairs is at least as great as the obtained stopband attenuation of the external filter as taught by the Present Application. Accordingly, it is respectfully submitted that the

language of the claims is clear and sufficiently defines the metes and bounds of the claimed subject matter.

In view of the foregoing, reconsideration and withdrawal of the § 112, second paragraph, rejection of claims 1-31 is respectfully requested.

Rejections of Claims 1-14, 21-25, and 31

At page 6 of the Office Action, claims 1-3, 5-7, and 21-23, and 31 are rejected under 35 U.S.C. § 102(b) as anticipated by Hikita (U.S. Patent No. 6,396,154). At page 16 of the Office Action, claims 4, 8-4, 24, and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hikita. These rejections are respectfully traversed.

Independent claim 1 has been amended and presently recites the features of "wherein said first and second terminal pairs are separated by a first predetermined distance sufficient to maintain an input-to-output isolation attenuation therebetween of not less than a first stopband attenuation of the first external filter." As discussed at page 10 of the Submission and Response mailed September 17, 2007 (hereinafter, "the Previous Response"), Hikita fails to contemplate an operational attenuation of an external filter in any manner, much less a stopband attenuation of an external filter. Further, Hikita fails to disclose or suggest contemplating a *predetermined* distance sufficient to maintain an input-to-output isolation attenuation that is not less than the stopband attenuation of an external filter, much less that that first and second terminal pairs of an integrated circuit are separated by such predetermined distance as provided by claim 1.

In response, the Office contends that

> the first operational attenuation could be any number between negative infinity numbers and positive infinity numbers [sic]. If we measure an operational attenuation of any filter at one point that is the lowest value of the operational attenuation of the filter and measure the input-to-output isolation attenuation at it's highest point, then the value of the input-to-output isolation is always greater [than] the lowest value of the operational attenuation of any filter. Since Hikita et al. discloses a filter, [...] Hikita et al. fully anticipates [the above recited claim features].

Office Action, p. 7.

As noted above, one of ordinary skill in the art will appreciate that an external filter does not have an infinite stopband attenuation, but rather a finite and measurable attenuation. As also noted above, the input-to-output isolation attenuation between terminal pairs of an integrated circuit is finite and measurable or estimatable and is based on the distance between the terminal pairs. Thus, contrary to the Office's assertions, the input-to-output isolation between terminal pairs is not "always greater" than the stopband attenuation of an external filter. Hikita fails to contemplate an external filter, a stopband attenuation of an external filter, an input-to-output isolation attenuation between terminal pairs, how such input-to-output isolation attenuation is affected by distance, or a predetermined distance between the terminal pairs to achieve any particular input-to-output isolation attenuation in any manner, so Hikita necessarily fails to disclose or even suggest that an integrated circuit having terminal pairs configured to be coupled to an external filter via terminal pairs has those terminal pairs separated by a *predetermined* distance sufficient to maintain an input-to-output isolation attenuation therebetween of not less than the stopband attenuation of an external filter as provided by claim 1.

Independent claim 21 has been amended and presently recites the features of "wherein said first pair of terminals and said second pair of terminals are separated by a predetermined distance sufficient to maintain an input-to-output isolation attenuation therebetween that not less than a stopband attenuation of said external filter." As similarly discussed above with reference to claim 1, Hikita fails to disclose, or even suggest, these claimed features and thus Hikita fails to disclose each and every feature presently recited by claim 21.

Hikita also fails to disclose, or even suggest, each and every feature recited by claims 3-14, 23-25, at least by virtue of their respective dependencies from one of claims 1 or 21. Moreover, these dependent claims recite additional novel features.

In view of the foregoing, reconsideration and withdrawal of the anticipation rejection of claims 1-3, 5-7, 21-23, and 31 and the obviousness rejection of claims 4, 8-14, 24, and 25 is respectfully requested.

Rejections of Claims 15-20 and 30

At page 10 of the Office Action, claims 15-19 and 30 are rejected under 35 U.S.C. § 102(b) as anticipated by Dreifus (U.S. Patent No. 5,576,589). At page 18 of the Office Action,

claim 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Dreifus in view of Hayashi (U.S. Patent No. 6,329,715). These rejections are respectfully traversed.

Independent claim 15 recites the features of "wherein said first terminal and said second terminal are separated by a first predetermined distance sufficient to maintain a first input-to-output isolation attenuation therebetween that is not less than a first stopband attenuation of the first external filter, and wherein said third terminal and said fourth terminal are separated by a second predetermined distance sufficient to maintain a second input-to-output isolation attenuation therebetween that is not less than a second stopband attenuation of the second external filter." As discussed at page 11 of the Previous Response, Dreifus fails to contemplate an operational attenuation of an external filter in any manner, much less a stopband attenuation. Dreifus also fails to disclose or suggest that first and second terminals of an integrated circuit are separated by a *predetermined* distance sufficient to maintain an input-to-output isolation attenuation therebetween that is not less than an stopband attenuation of an external filter as provided by claim 15. Hayashi fails to compensate for the deficiencies of Driefus with respect to these claim features and thus Driefus and Hayashi, individually or in combination, fail to disclose, or even suggest, each and every feature presently recited by claims 16-20.

The Office responds by asserting the same rationale asserted under Hikita, namely that the measured input-to-output isolation attenuation will always be greater than the lowest measured operational isolation of an external filter. As discussed above, this rationale finds no support, particularly with respect to the stopband attenuation of an external filter, and therefore fails to support an assertion that Driefus discloses or suggests the features of "wherein said first terminal and said second terminal are separated by a first *predetermined* distance sufficient to maintain a first input-to-output isolation attenuation therebetween that is not less than a first stopband attenuation of the first external filter, and wherein said third terminal and said fourth terminal are separated by a second predetermined distance sufficient to maintain a second input-to-output isolation attenuation therebetween that is not less than a second stopband attenuation of the second external filter" as recited by claims 15-20.

In view of the foregoing, reconsideration and withdrawal of the anticipation rejection of claims 15-19 and 30 and the obviousness rejection of claim 20 is respectfully requested.

Anticipation Rejection of Claims 26-29

At page 13 of the Office Action, claims 26, 27, and 29 are rejected under 35 U.S.C. § 102(b) as anticipated by Hazama (U.S. Patent No. 4,296,391). At page 18 of the Office Action, claim 28 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hazama. These rejections are respectfully traversed.

Independent claim 26 has been amended and recites the features of "wherein said adjacent first and second terminals and said adjacent third and fourth terminals are separated by a first *predetermined* distance sufficient to maintain an input-to-output isolation attenuation therebetween that not less than a first stopband attenuation of said first external filter" and "wherein said adjacent fifth and sixth terminals and said adjacent seventh and eighth terminals are separated by a second *predetermined* distance sufficient to maintain an input-to-output isolation attenuation therebetween that is not less than a second stopband attenuation of said second external filter." Hazama fails to contemplate a stopband attenuation of an external filter in any manner, much less that terminals of an integrated circuit are separated by a *predetermined* distance sufficient to maintain an input-to-output isolation attenuation therebetween that is not less than a stopband attenuation of an external filter as provided by claim 26. Accordingly, Hazama fails to disclose, or even suggest, each and every feature presently recited by claim 26. Hazama also fails to disclose or suggest each and every feature recited by claims 27-29 at least by virtue of their dependency from claim 26. Moreover, these dependent claims recite additional novel features.

In view of the foregoing, reconsideration and withdrawal of the anticipation rejection of claims 26, 27, and 29 and the obviousness rejection of claim 28 is respectfully requested.

Conclusion

The Applicants respectfully submit that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Applicants believe no additional fees are due, but if the Commissioner believes additional fees are due, the Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

/ryan s davidson/	27 December 2007
Ryan S. Davidson; Reg. No. 51,596	Date

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